

لطیف سرور

دانشمدرس

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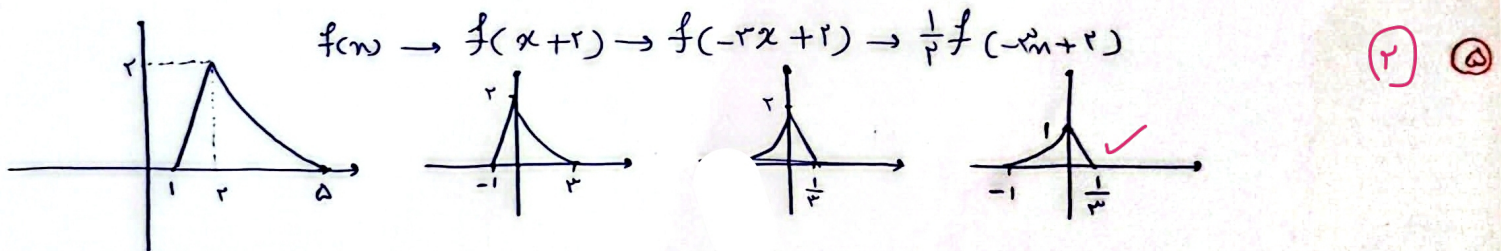
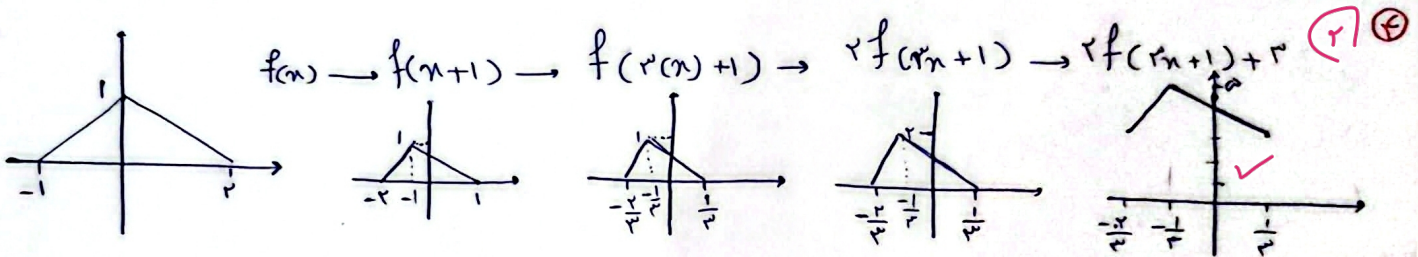
نویسنده

$$-2 \leq \frac{r_n + 2}{a} \leq 2 \rightarrow -10 \leq r_n + 2 \leq 20 \rightarrow -12 \leq r_n \leq 18 \rightarrow -2 \leq n \leq 2 \rightarrow D_f = [-2, 2] \quad (2) \textcircled{1}$$

$$-2 \leq x \leq 2 \rightarrow -9 \leq r_n \leq 9 \rightarrow -11 \leq r_n - 2 \leq 7 \rightarrow D_f = [-11, 7] \quad (2) \textcircled{2}$$

$$-1 \leq x < 2 \rightarrow -5 \leq r_n < 9 \rightarrow -2 \leq r_{n+1} < 10 \rightarrow -1 \leq \frac{r_{n+1}}{r} < 5 \rightarrow D_f = [-1, 5] \quad (2) \textcircled{3}$$

$$-1 \leq 2 - \Delta n < 5 \rightarrow -3 \leq -\Delta n < 3 \rightarrow 3 \geq \Delta n > -3 \rightarrow \frac{r}{a} \geq \frac{r}{a} > -\frac{r}{a}$$



$$x = \frac{-b}{a} \rightarrow \frac{\frac{r}{a} + \frac{r}{a}}{\frac{r}{a} + \frac{r}{a}} = \frac{r}{a} \quad y = \frac{\Delta}{r a} \cdot \frac{r}{a} \rightarrow \left(\frac{r}{a}, \frac{r}{a} \right) \xrightarrow{\text{میان اصل}} \left(\frac{r}{a}, \frac{r}{a} \right)$$

$$\begin{aligned} & \left(\frac{r}{a}, \frac{r}{a} \right) \\ & \frac{r}{a} \cdot \frac{r}{a} \\ & a(-1)t \\ & r a t^2 - r \cdot t + r \cdot r \\ & (a t^2 - 1)(a t + 1) = 0 \\ & \rightarrow t = \frac{1}{a} \quad t = \frac{1}{a} \end{aligned}$$

$$t = x - \frac{1}{a}$$

$$-\frac{1}{r} t^2 + \frac{2}{a} t + \frac{r}{a} = 0$$

$$t^2 + \frac{2}{a} t - \frac{r}{a} = 0$$

$$t = \frac{-\frac{2}{a} \pm \sqrt{\left(\frac{2}{a}\right)^2 + 4 \cdot \frac{r}{a}}}{2}$$

$\frac{1}{a} + t = x$

$\left(\frac{1}{a} \right) \rightarrow \left(\frac{1}{a} \right)$

$x = 1$

$x = 2$

$$x_s = \frac{-1+r}{r} \cdot 1$$

$$y_s = r$$

$$y = 1 - r f(n+r)$$

$$r_{n+r} \leq 1 \rightarrow r_{n+2} = 1 \rightarrow n \leq \frac{1}{r}$$

$$-r(r) + 1 \checkmark \quad \alpha\beta = -\frac{1}{r} \alpha - r \cdot \frac{1}{r}$$

(2) (v)

$$a \leq x-1 \leq \varepsilon \rightarrow a+1 \leq x \leq \varepsilon \rightarrow Df(n-1) = (a+1, \varepsilon]$$

$$-r \leq x < b-1 \rightarrow Dg(n+1) = [-r, b-1) \quad \text{استدلال} \rightarrow (a+1, \varepsilon] \cap [-r, b-1)$$

$$-r - \varepsilon = -a$$

$$a+1 = -r \rightarrow a = -r-1$$

$$b-1 = \varepsilon \rightarrow b = \varepsilon+1$$

(2) (A)

(1) *

$$Dy_1 = [-r, \varepsilon] \quad -r \leq x \leq \varepsilon \quad \frac{-r}{r} \leq \frac{x}{r} \leq \frac{\varepsilon}{r} \rightarrow -\frac{1}{r} \leq \frac{x}{r} + 1 \leq \frac{\varepsilon}{r} \rightarrow Df = [-\frac{1}{r}, \frac{\varepsilon}{r}]$$

$$Ry_2 = [-1, r] \rightarrow -1 \leq f(n) \leq r \rightarrow -r \leq f(n) - r \leq -1 \rightarrow |f(n) - r| \leq r$$

$$Rf = [\sqrt{r}, \sqrt{r}] \leftarrow \sqrt{r} \leq \sqrt{r|f(n)-r|} \leq \sqrt{r} \leftarrow r \leq r|f(n)-r| \leq r$$

$$\sqrt{|rf-r|}$$

$$f(n) = \left| \frac{n+1}{r_{n+1}} \right| \rightarrow \left| \frac{(n-r)+1}{r(n-r)+1} \right| + 1 = \left| \frac{n-1}{r_{n-r}} \right| + 1$$

$$x + g(n) < 0 \rightarrow n + \left| \frac{n-1}{r_{n-r}} \right| + 1 < 0 \rightarrow \left| \frac{n-1}{r_{n-r}} \right| < -(n+1) \rightarrow \frac{n-1}{r_{n-r}} < -n-1$$

$$\frac{+r}{r} - \frac{-r}{r}$$

$$\rightarrow \frac{n-1 + (n+1)(r-r)}{r_{n-r}} < 0 \rightarrow \frac{r_{n-r} - 1}{r_{n-r}} < 0 \rightarrow \frac{r(n-r-r)}{r_{n-r}} < 0$$

$$\left(\frac{r}{r} \right)$$

$$\left(-\infty, -\frac{1}{r} \right) \leftarrow \frac{-\sqrt{r}}{r} + \frac{\sqrt{r}}{r} + \frac{r}{r}$$

$$D_{y_1} = [-r, \Delta] \rightarrow -r \leq x \leq \Delta \rightarrow -\frac{1}{r} \leq \frac{x}{r} + 1 \leq \frac{\Delta}{r} \Rightarrow D_f = \left[-\frac{1}{r}, \frac{\Delta}{r}\right]$$

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$$R_{y_1} = [-1, r] \rightarrow -1 \leq t \leq r \rightarrow -\Delta \leq rt - r \leq 1 \rightarrow 0 \leq |rt - r| \leq \Delta$$

$$0 \leq \sqrt{|rt - r|} \leq \sqrt{\Delta} \Rightarrow R_f = [0, \sqrt{\Delta}]$$